Claims

Claim 1

An ~~A~~amorphous silica-titania composite oxide powder which is powder untreated with a surface treatment agent and consisting of amorphous silica-titania composite oxide particles,

wherein:

a refractive index of the particles as measured by immersion method at a measurement wavelength of 589 nm is not less than 1.46;

a volume-based cumulative 50% diameter as measured by laser diffractometry is in a range of 0.1 μm to 2.0 μm; and

a content of particles having a particle size of not less than 5.0 μm is not more than 10 ppm as measured by Coulter counter method, and

wherein, in a case where the silica-titania composite oxide powder is dried in an atmospheric air at 110°C for 12 hours, and powder thus dried is stored for 24 hours under conditions of a temperature of 25°C and a relative humidity of 85% so as to absorb moisture, a water absorption rate is not more than 0.8% by mass as calculated from a change in mass in accordance with the following formula:

water absorption rate = (Y-X)/X × 100

where X is a mass before moisture absorption, and Y is

a mass after the moisture absorption~~.~~;

wherein the amorphous silica-titania composite oxide powder, including:

a core consisting of a silica-titania composite oxide; and

a silica coating layer consisting of silica.

~~Claim 2~~

~~The amorphous silica titania composite oxide powder as set forth in claim 1, including:~~

~~a core consisting of a silica-titania composite oxide; and~~

~~a silica coating layer consisting of silica.~~

Claim ~~3~~2

A s~~S~~urface-treated amorphous silica-titania composite oxide powder in which the amorphous silica-titania composite oxide powder recited in claim 1 ~~or 2~~ has been treated with a surface treatment agent.

Claim ~~4~~3

A resin composition, comprising:

the amorphous silica-titania composite oxide powder recited in any one of claims 1 through ~~3~~2; and

a resin.

Claim ~~5~~4

A dispersion liquid in which the amorphous silica-titania composite oxide powder recited in any one of claims 1 through ~~3~~ 2 is dispersed in a solvent.

~~Claim 6~~

~~A method for producing silica-coated silica-titania composite oxide powder, comprising:~~

~~forming a silica coating layer on surfaces of silica-titania composite oxide particles by gradually adding, to an alkaline aqueous dispersion liquid in which the silica titania composite oxide particles are dispersed, an organic silicon compound capable of producing tetrahydroxysilane by hydrolysis; subsequently recovering particles from the liquid; and~~

~~sintering the particles to obtain powder, wherein~~

~~(1) from a start to an end of addition of the organic silicon compound to the alkaline aqueous dispersion liquid, the following (a) and (b) are continuously carried out: (a) the organic silicon compound and a nitrogen containing alkaline aqueous dispersion liquid are dropped simultaneously with and independently of each other while an amount of the organic silicon compound added is adjusted so that a change in water concentration in the alkaline aqueous dispersion~~

~~liquid is not greater than ±1% by mass; and (b) a temperature is maintained at not lower than 40°C, and~~

~~(2) a temperature during the sintering is not lower than 900°C.~~

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